REMARKS

Status of the Claims

Claims 1-2, 8-12 and 41-52 are pending in the application, Claims 3-7 and 13-40 having previously been cancelled. Claims 1, 8, 49, and 50 have been amended to more clearly define the invention.

Claim Objections

The Examiner has objected to Claim 49 under 37 CFR 1.75 as being a substantial duplicate of Claim 1, the Examiner asserting that Claim 49 and Claim 1 are duplicates, or else are so close in content that they both cover the same invention, despite a slight difference in wording. Applicants respectfully disagree with the Examiner's conclusion that Claim 1 and Claim 49 are duplicates, but point out that they are indeed directed to the same invention, since applicants are not attempting to claim multiple patentably distinct inventions in a single application. The Examiner is correct that Claims 1 and 49 are each directed to a blank library that includes carriers to which optically distinct reporters have been added. Significantly, Claim 49 defines the invention using the term ***consisting*** (see subparagraph (f)) as opposed to ***comprising***. Applicants respectfully submit that the scope of the terms consisting and comprising are sufficiently different that the objection to Claim 49 should be withdrawn.

Claims 1-2, and 41-44 Rejected under 35 U.S.C. § 112

The Examiner has rejected Claims 1-2, and 41-44 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts this is a new matter rejection because the claimed method of constructing a blank library of optically distinct reporter labeled carriers of Claim 1 has no clear support in the specification and the claims as originally filed. The Examiner asserts that the specification on page 12 disclosed "a method for the production of a reporter-labeled carrier library by the addition of all required reporter system in a single step prior to the synthesis or addition of the chemical compounds to the carrier." First, the Examiner asserts because the specification recites the method of making a library of reporter labeled carriers wherein the resulting library *includes* attached local compounds, the specification therefore cannot support the claimed method of constructing a blank library of optically distinct reporter labeled carriers wherein the resulting library *does not include* attached chemical compounds.

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Applicants respectfully submit that the Examiner's rejection is not logical. As the Examiner points out, the specification on page 12 discloses *a method for the production of a reporter-labeled carrier library by the addition of all required reporter types to a carrier in a single step, prior to the synthesis or addition of chemical compounds to the carriers.* Indeed applicants' specification points out that this method can be distinguished from the prior art, in which compounds of interests and reporters are added to the carrier at the same time – "*although reporter-labeled carrier encoding can be co-executed with the synthesis of chemical compounds during the encoding process, either by SAP or directed methods, this approach can lead to interference between the encoding and synthetic processes.*" A novel aspect of the present invention, as clearly described in the specification as filed, is that ***before*** compounds of interest are added to carriers, the reporters that enable different carriers to be specifically identified are added to the carriers. That process achieves a reporter labeled carrier library ***prior*** to the synthesis or addition of chemical compounds to the carriers. Thus, the very process to which the Examiner refers on page 12 achieves a blank library of reporter labeled carriers. Once that library has been produced, compounds of interest can be attached to that library.

The method described in applicants' specification does not require that compounds of interest be immediately added to the blank library of reporter labeled carriers. Indeed, applicants' specification specifically contemplates that a blank library of reporter labeled carriers will be generated and then used at some later time for investigative purposes. As explicitly stated in the specification as filed, in an embodiment where no chemical compounds are attached to the carriers during the encoding process, a large run of a single set of uniquely encoded carriers can be used for any number of different compounds that are ***subsequently*** synthesized on or attached to the carriers (see applicants' specification, page 12, lines 30-34, emphasis added). When carriers are encoded with reporters before adding compounds to the carriers a blank library is achieved.

The Examiner appears to believe that because the specification as filed describes generating a blank library of reporter labeled carriers in a single step encoding process (i.e., in a process where reporters are attached to the carriers before any compounds of interest are attached to the carriers, in contrast to prior art stepwise techniques, often referred to as split/add//pool techniques, where both a compound of interest and a reporter will be added to a carrier in the same step), and then using blank library of reporter labeled carriers in a particular investigation or synthesis, the application as filed doesn't disclose the generation of a blank library of reporter labeled carriers of all. Applicants have

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simply amended the claims to focus on the single step encoding process that generates a blank library of reporter to labeled carriers, rather than focusing on a more complicated manipulation that involves first generating a blank library of reporter labeled carriers and then using that blank library of report labeled carriers in a specific synthesis. Put another way, FIGURE 9 schematically illustrates a fairly complicated procedure in which a blank library of reporter labeled carriers is first to generated, and then those reporter labeled carriers are used in a complicated synthesis. The amended claims simply focus on the process illustrated in the uppermost portion of FIGURE 9, as opposed to the entire Figure (and the text of the specification that describes this portion of the Figure). Asserting that applicants have not disclosed a method simply because applicants claim only a portion of what has been disclosed, as opposed to all that has been disclosed, is not logical.

The specification specifically discusses a blank library and includes two examples. First, the specification as filed teaches that a library of 10,000 unique carriers can be created and later used for SNP analysis, wherein DNA oligomers are subsequently bound to the carriers (see applicants' specification, page 12, lines 34-36). Second, the specification indicates the same set of carriers (that is, a blank library that includes reporter labeled carriers, but does not include any compounds of interest yet attached to the carriers) can be used in a multiplex drug discovery assay in which 10,000 different compounds are bound to the carriers (see applicants' specification, page 12, lines 36-37). This blank library (to which the claims as presently amended are directed) can then be used for research purposes, by adding compounds of interest to the blank library, so that a reporter labeled carrier to which compounds of interest have also been attached can be achieved. Generation of a blank library is simply an explicitly disclosed technique utilized prior to any synthesis or addition of the chemical compounds to the carrier. These two specific examples make it clear that in contrast to the Examiner's assertion, a blank library is explicitly described.

As noted above the disclosure in the present application corresponding to FIGURE 9 specifically teaches that the blank library of reporter labeled carriers can be used with different synthesis reactions than the specific synthesis reaction shown in FIGURE 9. The top portion of FIGURE 9 schematically illustrates the generation of a blank bead library including 8 different types of reporter labeled carriers, wherein labeling the carriers (i.e., the encoding process) is executed before any compounds of interest are attached (thereby achieving a blank library of reporter labeled carriers). As described in the specification, in a reaction vessel 18a, carriers are first encoded by

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attaching a green reporter, a blue/yellow reporter, and a blue/green/red reporter to each carrier in the reaction vessel. Each additional reaction vessel 18b-18h will receive a unique combination of reporters, such that *a plurality of carriers are provided, each carrier being configured to support a plurality of reporters and a plurality of compounds of interest* (note that FIGURE 9 clearly shows a plurality of reporters being attached to the carriers, as well as a plurality of nucleotide sequences being attached to the blank library of reporter labeled carriers in an additional step of the synthesis reaction shown in FIGURE 9); *providing a plurality of reaction vessels, such that at least one reaction vessel is available for each unique member of the blank library to be constructed* (reaction vessels 18a-18h are provided), *providing a plurality of optically distinct reporters such than at least two of the plurality of optically distinct reporters are different from each other* (green, red, yellow and blue optically distinct reporters are provided); *in each reaction vessel, apportioning at least one carrier, such that any reaction vessel that includes more than one carrier will include only identical carriers* (with respect to FIGURE 9, all the carriers are identical, and carriers are apportioned to each reaction vessel); *in each reaction vessel apportioning at least one optically distinct reporter such that a unique combination of the at least one carrier and the at least one optically distinct reporter is achieved in each reaction vessel, and such that the optically distinct reporters in each vessel enable each carrier in that vessel to be distinguished from carrier and reporter combinations in other vessels* (each reaction vessel 18a-18h includes a unique set of reporters to enable the carrier and reporter combination in that reaction vessel to be uniquely distinguished from all other carrier and reporter combinations)*; and attaching said at least one optically distinct reporter to said at least one carrier in each reaction vessel, such that each carrier in the same reaction vessel will have an identical set of optically distinct reporters attached to it, each reaction vessel including a set of optically distinct reporter labeled carriers that is uniquely different from the optically distinct reporter labeled carriers of each other reaction vessel, the plurality of reaction vessels thereby defining a blank library of optically distinct reporter labeled carriers, such that compounds of interest can later be attached to the optically distinct reporter labeled carriers of the blank library.* The specification clearly describes using conventional techniques, such as covalent bonding, to attach the reporters to the carriers, that each reaction vessel includes a unique combination of reporters and carriers such that each carrier and reporter combination in a particular reaction vessel can be optically distinguished from carrier and reporter combinations in other reaction vessels, and at that blank

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libraries of reporter labeled carriers of size up to 10,000 carriers can be prepared and used for various types of investigations.

The specification also clearly indicates that a single step encoding process (i.e., a process in which reporters are added to carriers before any compounds of interest are added to the carriers) can be used to achieve a blank library of optically distinct reporter labeled carriers. For example, the specification states that the number of unique combinations that can be generated using the single step carrier encoding approach is dictated by Equation (3) (see applicants' specification, page 12, lines 26-28). In the single step encoding process, the number of reaction vessels required is equivalent to the number of unique reporter-carrier assemblies generated (see applications' specification, page 12, lines 28-30). The reference to equation (3), the topmost portion of FIGURE 9 (where carriers and reporters are introduced into reaction vessels to achieve a blank library of reporter labeled carriers before any compounds of interest are introduced into the reaction vessels for a particular investigation), the text related to FIGURE 9, and the specific disclosure that blank libraries of reporter labeled carriers including 10,000 or more carriers provide support for the amended claims.

The specification as filed clearly encompasses the scope of the amended claims directed to a method of constructing a blank library of optically distinct reporter labeled carriers. The teaching of the specification clearly indicates that at the time the application was filed, applicants possessed and described a method for generating a blank library of reporter labeled carriers that could be used in several different types of research investigations. Simply because applicants chose to describe specific research applications in detail does not merit a conclusion that applicants did not possess or also describe the generation of a blank library of reporter labeled carriers. Indeed, the generation of a blank library of reporter labeled carriers is a first step in several specific research applications illustrated (FIGURES 5, 7, 8 and 9) and described by applicants. Accordingly, the rejection of Claims 1, 2, and 41-44 for failing to comply with the written restriction requirement should be withdrawn.

Claims 8-12 and 45-48 Rejected under 35 U.S.C. § 112

The Examiner has further rejected Claims 8-12 and 45-48 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is substantially similar to the above noted rejection of Claims 1-2, and 41-44. Applicants respectfully disagree for the following reasons.

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As discussed in detail above, particularly with respect to FIGURE 9, blank libraries of reporter labeled carriers are generated ***before*** compounds of interest are attached to the reporter labeled carriers. Simply because some Figures show both the generation of a blank library of reporter labeled carriers ***and*** the subsequent attachment of compounds of interest to the blank library does not mean that the specification as filed fails to disclose the generation of blank libraries of reporter labeled carriers. In fact, the specification as filed teaches generating a relatively large blank library of reporter labeled carriers (i.e., 10,000 or more) so that after the blank library had been constructed, compounds of interest could be attached to each member of the library, to enable relatively large scale investigations to be carried out.

The specification clearly teaches that individual reporters can be added to identical carriers to enable different sets of optically discriminable carriers to be achieved. The specification further clearly teaches that carriers can be optically discriminated using a variety of different techniques. Different colors can be discriminated. Different intensities of colors can be discriminated, and different shapes can be discriminated.

It appears the Examiner has determined that the end result of the manipulations illustrated in FIGURES 1 and 2-9 are libraries, and the present claims are not supported by the specification as filed because the end result of those manipulations include reporter labeled carriers to which compounds of interest (specifically nucleotide sequences) have been attached. While the Examiner certainly can consider the sets of nucleotide sequences to be a library of sorts, the fact remains that the specification as filed (the topmost portion of FIGURE 9 in particular) clearly teaches, describes, and illustrates the generation of blank libraries of reporter labeled carriers. The fact that these blank libraries of reporter labeled carriers are then manipulated in synthesis reactions in which nucleotide sequences are added to the blank library of reporter labeled carriers does not merit the conclusion that the application as filed does not teach the generation of the blank libraries. Accordingly, the rejection of Claims 8-12 and 45-48 under 35 U.S.C. § 112, for failing to comply with the written description requirement, should also be withdrawn.

Claim 49 Rejected under 35 U.S.C. § 112

The Examiner has also rejected Claim 49 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts this is a new matter rejection because the claimed method of constructing a library of optically distinct reporter labeled carriers to

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which no compounds of interest are yet attached has no clear support in the specification and the claims as originally filed.

As discussed in detail above, the uppermost portion of FIGURE 9 schematically illustrates the generation of a blank library of reporter labeled carriers are generated ***before*** compounds of interest are attached to the reporter labeled carriers, and the specification teaches generating a relatively large blank library of reporter labeled carriers (i.e., 10,000 or more), so that after the blank library had been constructed, compounds of interest could be attached to each member of the library, to enable relatively large scale investigations to be achieved. The subject matter claimed in Claim 49 is indeed described in the specification, and the rejection of Claim 49 for failing to comply with the written description requirement should be withdrawn.

Claims 50-52 Rejected under 35 U.S.C. § 112

The Examiner has also rejected Claims 50-52 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts this is a new matter rejection because the claimed method of constructing a library of optically distinct reporter labeled carriers to which no compounds of interest are yet attached has no clear support in the specification and the claims as originally filed. Applicants respectfully disagree for the following reasons.

In addition to asserting that the specification does not provide written support for the generation of a blank library of reporter labeled carriers, the Examiner further asserts that step of subparagraph (b) of Claim 50, which recites "based on the number of different optically distinct reporters provided, determining all possible binary codes that can be produced using the optically distinct reporters provided" has no clear support in the specification or in the claims as originally filed. The Examiner asserts that the specification discloses a method of combining four-color species of singly labeled micro-beads to produce all possible binary color codes, and therefore, concludes that the narrow limitation of the specification does not support the broad limitation of the claim. The recitation in the claim is broader because the claim recites ***any*** type of reporters, thus, he concludes that the claimed reporter would encompass a broad genus of reporters.

Applicants have discussed in detail above why the specification as filed provides support for the generation of a blank library of reporter labeled carriers. With respect to subparagraph (b) of Claim 50, the specification does describe several different types of reporters. For example, the specification indicates that reporters can be distinguished based on size, shape, color, and intensity of

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color. The specification clearly states "...it will be evident that any optically-detectable parameter can be used for encoding, including size, shape, intensity, polarization, etc (page 13, lines 31-33). Thus, the specification supports a broader limitation than the Examiner appears to be willing to recognize. The portion of the specification to which the Examiner has referred simply discloses one example of optical properties that can be utilized, but not the only example of optical properties that can be employed, as noted above.

The Examiner has further asserted that the method step in subparagraph (b) of Claim 50 is interpreted to be a thought process, which is not patentable subject matter. While the Examiner is correct that a claim that consists ***solely*** of a thought process is a claim that is not patentable because it is directed to non-statutory subject matter, that is not the case with respect to Claim 50. MPEP 2106 makes it clear that the manipulation of numbers, abstract concepts or ideas, or signals is unpatentable ***only*** if there are no steps in the process being applied to appropriate subject matter. With respect to Claim 50, the additional steps are clearly directed to appropriate subject matter, and thus merely because part of the entire process is directed to the manipulation of numbers does not merit a conclusion that the entire process corresponds to unpatentable subject matter. When considered in its entirety, it is apparent that Claim 50 is a statutory process claim, because it recites the physical manipulation of certain materials (the optically distinct reporters, a plurality of carriers, reaction vessels) to produce a given result (the blank library). It is a series of steps performed upon the subject-matter that is thereby transformed and reduced to a different state or thing (MPEP 2106(IV)(B)2b). Accordingly, the rejection of Claims 50-52, for failing to comply with the written description requirement, should be withdrawn.

Claims 1-2, 8-12, and 41-52 Rejected under 35 U.S.C. § 112

The Examiner has rejected Claims 1-2, 8-12, and 41-52 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because the phrase "at least some" of Claims 1, 8, 49, and 50 is vague and indefinite because it is unclear what constitutes the meets and bounds of "some." Accordingly, applicant has amended Claims 1, 8, 49, and 0 to claim "at least two" instead of "at least some," thereby addressing this rejection, which is not justified in any case, since the language of these claims before this amendment would be completely clear to one of ordinary skill in the art. In any case, this rejection should be withdrawn in view of this amendment.

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Claims Rejected as Being Anticipated by WO 99/24458

The Examiner has rejected Claims 1-2, 8-12, and 41-49 as being anticipated by The University of Queensland (WO 99/24458 hereinafter referred to as the '458 application). The Examiner asserts that the '458 application describes each element of applicants' claimed invention. Applicants respectfully disagree with the rejection.

In the interest of reducing the complexity of the issues for the Examiner to consider in this response, the following discussion pertaining to the rejection of claims rejected under 35 U.S.C. § 102 focuses on independent Claims 1, 8, 49, and 50. The patentability of each remaining dependent claim is not necessarily separately addressed in detail. However, applicants' decision not to discuss the differences between the cited art and each dependent claim should not be considered as an admission that applicants concur with the Examiner's conclusion that these dependent claims are not patentable over the disclosure in the cited references. Similarly, applicants' decision not to discuss differences between the prior art and every claim element, or every comment made by the Examiner, should not be considered as an admission that applicants concur with the Examiner's interpretation and assertions regarding those claims. Indeed, applicants believe that all of the dependent claims patentably distinguish over the references cited. However, a specific traverse of the rejection of each dependent claim is not required, since dependent claims are patentable for at least the same reasons as the independent claims from which the dependent claims ultimately depend.

The Examiner asserts that the '458 application discloses the method of: (1) splitting the carriers into two portions in reaction vessels; and (2) adding red reporters to one reaction vessel and green reporters to the other reaction vessel. Furthermore, the Examiner notes that the reporter carriers have properties such as color, a fluorescence signal, and a detectable physical feature, such as size (the '458 application, page 24, lines 7-20)

The present invention can be distinguished from the '458 application because the blank library achieved using the method defined by Claim 1 in the present application includes a plurality of carriers to which have been attached unique combinations of reporters, but no compounds of interest (such as amino acid sequences). The '458 application does indeed disclose a method for attaching reporters to carriers; however, that method specifically teaches that a compound of interest (such as an amino acid sequence) is added to the carrier either immediately before or immediately after a unique reporter has been added to the carrier. Thus, a carrier having four reporters added to it

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will also have four amino acid sequences added to it, and the specific combination of reporters can be used to identify the specific amino acid sequence. Accordingly, the library described in the '458 application is not a blank library. The library described in the '458 application includes carriers to which both reporters and compounds of interest have been attached. In contrast to what is disclosed in the present application, the '458 application does not teach or suggest generating a blank library of carriers attached to reporters, for later use. According to the '458 application, reporters are added to carriers only in conjunction with adding a compound of interest to the carrier.

Significantly, the '458 application does not appear to teacher or suggest any of the experimental activities disclosed in the present application for which a blank library can be useful. The split/ad/pool combinatorial synthesis described in the '458 application (and also disclosed as being prior art in the present application; see FIGURE 1 and the related text) has utility that is well recognized in the art. However, the cited art does not appear to recognize that a blank library of reporter labeled carriers also has significant utility in research applications. While the '458 application does teach that carriers can be labeled with reporters, the only library disclosed in the '458 application is a library that includes compounds of interest also attached to the carriers. There is no evidence that one of ordinary skill in the art would have recognized the utility of a blank library of reporter labeled carriers, and thus would have been led to modify the method disclosed in the '458 application to achieve the blank library of reporter labeled carriers described and claimed in the pending application. Claim 1 is therefore distinguishable over the cited art. Similarly, each claim that depends from Claim 1 is patentable for the same reasons. Accordingly, the rejection of Claims 1, 2, and 41-44 as being anticipated by the '458 application should be withdrawn.

Claim 2 specifically recites that ". . . at least one reaction vessel contains a carrier that is optically distinct from others of said plurality of carriers in other reaction vessels . . ." The '458 application does not teach or suggest carriers that are ***themselves*** optically distinct from each other. According to the '458 application the only reason that one carrier is distinct from another carrier is because a different reporter has been attached to it. Claim 2 specifically recites that the carriers themselves are optically distinct. The specification of the pending application indicates that optically distinct carriers can be achieved by using carriers that inherently have different sizes, different shapes, or different colors. Claim 2 is therefore distinguishable for this additional reason.

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Independent Claim 8 similarly recites a method of constructing a *blank* library of optically distinct reporter labeled carriers. Once again, this blank library includes reporter labeled carriers to which a compound of interest has not yet been attached. As discussed above in detail, the '458 application does not teach or suggest a library of reporter labeled carriers that does not include carriers to which a compound of interest has also been attached. Claim 8 is therefore distinguishable over the cited art, as is each claim that depends on Claim 8. Accordingly, the rejection of Claims 8-12 and 45-48 as being anticipated by the '458 application should be withdrawn.

Claims 10, 11, and 12 specifically recites that the optically distinct carriers are optically distinguishable based on size (Claim 10), intensity (Claim 11), and shape (Claim 12). As noted above, the '458 application does not teach or suggest carriers that are optically distinct from each other at all. Claims 10, 11, and 12 are therefore distinguishable for this additional reason.

Independent Claim 49 similarly recites a method of constructing a library of optically distinct reporter labeled carriers, to which no compounds of interest are yet attached. For the same reasons discussed above in applicants' traverse of the rejection of Claim 1, the '458 application does not teach or suggest a method for achieving a library of reporter labeled carriers that does not also include compounds of interest attached to the carriers. Claim 49 is therefore patentable over the cited art. Accordingly, the rejection of Claim 49 as being anticipated by the '458 application should be withdrawn.

Claims Rejected as Anticipated by Seul

The Examiner has rejected Claims 1-2, 8-12, and 41-52 as being anticipated by U.S. Patent Application Publication 2002/0090613 (Seul et al., hereinafter referred to as "Seul"). The Examiner asserts that Seul anticipates the method recited in these claims. Specifically, the Examiner asserts that Seul teaches the steps of providing a plurality of reaction vessels, wherein each reaction vessel contains a plurality of carriers, and adding to each vessel a different fluorophore that would result in different color encoded carriers for each reaction vessel. Applicants respectfully disagree for the following reasons.

Applicants respectfully submit that the present invention is distinguished from Seul for substantially the same reasons as it is over the '458 application. Specifically, the present invention is directed to producing a blank library of reporter labeled carriers, where no compounds of interest have yet been attached to the carriers in the library. The Examiner is correct that Seul discloses a

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library of reporter labeled carriers, however, these carriers in the cited prior art also have compounds of interest attached thereto.

Applicants respectfully direct the Examiner's attention to FIGURE 2 of Seul. The central circle appears to represent a carrier, the compound corresponds to a compound of interest such as an amino acid), and the tags correspond to optically distinguishable reporters. Such a construct is not the same or equivalent to a carrier in applicants' blank library of reporter labeled carriers, because the carrier of FIGURE 2 includes a compound of interest attached to the carrier. FIGURE 4 of Seul appears to disclose the generation of a library of reporter labeled compounds. Note that FIGURE 4 specifically shows that amino acids (i.e., compounds of interest) are attached to the carriers, along with color labels. Thus, any library generated using the process illustrated in FIGURE 4 of this reference is not equivalent to the blank libraries claimed in the present application, because such a library in Seul will include compounds of interest attached to reporter labeled carriers. It should be noted that Seul discloses one bead/one compound chemical libraries; however, such libraries are distinguished from the present invention because the blank library of the present invention does not include compounds of interest, but instead, only reporter labeled carriers. The blank library of the present invention can be used to generate one bead/one compound libraries (which are reporter labeled); however, the cited art does not teach or suggest the generation of the blank library as claimed in the present application. Also, as discussed above, one aspect of the present invention that is not taught or suggested by Seul is that the carriers themselves can be optically distinguished independently of the reporters attached to the carriers. Optically distinguishable carriers can be implemented by using carriers having inherently different colors, different sizes, and different shapes. The cited art does not appear to teach or suggest this aspect of the present invention.

Each independent claim includes of the present invention recites a blank library of reporter labeled carriers that does not include any compounds of interest attached to the carriers, thereby distinguishing over the cited art. Each dependent claim similarly therefore also distinguishes over the cited art for the same reason. Accordingly, the rejection of Claims 1, 2, 8-12, 41-52 as being anticipated by Seul should be withdrawn

Claims Rejected as Being Anticipated by WO 00/32542

The Examiner has rejected Claims 1-2, 8-9, 11, 43-44 and 47-49 as being anticipated by The University of Queensland (WO 00/32542 hereinafter referred to as the '542 application). The

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Examiner asserts that the '542 application anticipates the applicants' claimed method by teaching the steps of providing separate batches of seed microspheres with a different concentration of fluorophores for each batch, re-pooling and randomly splitting into new batches, and any different concentrations of new fluorophores to each batch. Applicants respectively disagree for the following reasons.

The '542 application appears to disclose techniques for using a blank library of reporter labeled carriers in combinatorial synthesis reactions, in which compounds of interest are added to the reporter labeled carriers in a series of stepwise reactions. While the '542 application does disclose blank libraries of reporter labeled carriers, it is significant to note that the '542 application does not teach how to produce a blank library of reporter labeled carriers.

The claims in the present application are directed to a very specific series of steps employed to produce a blank library of reporter labeled carriers. Presumably other steps could be utilized to achieve a similar blank library of reporter labeled carriers, and disclosure of such a blank library of reporter labeled carriers does not merit a conclusion that the reference discloses the specific steps claimed by applicants to produce a blank library of reporter labeled carriers.

Page 27 of the '542 application describes a method for using a blank library of reporter labeled carriers that includes the step of *"(a) preparing a plurality of carriers having different codes wherein each code is characterized by at least two detectable and/or quantifiable attributes integrally associated with the respective carrier...."* The '542 application does suggest different types of reporters (the '542 application uses the term "attributes" in place of reporters) that can be used to achieve at least two quantifiable attributes associated with each carrier, including electromagnetic radiation related attributes, fluorophores, fluorescent dyes, and surface deformations of the carrier (such as pit, grooves, or notches). Significantly, no method is disclosed setting forth the specific steps employed in applicants' claims to achieve a blank library. Because the specific method steps of applicants' claims are NOT disclosed in the '542 application, it is apparent that the claimed invention of applicants is not taught or suggested by the cited art.

Independent Claims 1, 8 and 50 (and each claim depending therefrom) are distinguishable from the '542 application because while the '542 application discloses a blank library of reporter labeled carriers, the specific steps described and claimed in the present application are not taught or suggested in the '542 application. The '542 application simply teaches that blank libraries of reporter

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labeled carriers are useful, without teaching the specific method steps recited by applicants' claims to achieve such blank libraries. Accordingly, the rejection of Claims 1, 2, 8, 9, 11, 43, 44, and 47-49 as being anticipated by the '542 application should be withdrawn

In view of the amendments and Remarks set forth above, it will be apparent that the claims in this application define a novel and non-obvious invention, and that the application is in condition for allowance and should be passed to issue without further delay. Should any further questions remain, the Examiner is invited to telephone applicants' attorney at the number listed below.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid addressed to: Commissioner for Patents, Alexandria, VA 22313-1450, on March 9, 2005.

Date: March 9, 2005

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